



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/682,498	10/09/2003	Edwin Lyle Hudson	eLCOS0304	9878
7590	03/09/2006		EXAMINER	
Bo-In Lin 13445 Mandoli Drive Los Altos Hills, CA 94022			LUI, DONNA V	
			ART UNIT	PAPER NUMBER
			2675	

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/682,498	Applicant(s) HUDSON ET AL.	
	Examiner Donna V. Lui	Art Unit 2675	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) ☒ Notice of References Cited (PTO-892) | 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) ☐ Notice of Informal Patent Application (PTO-152) |
| 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) ☐ Other: _____ |

DETAILED ACTION

Inventorship

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 2675

3. Claims 1-26 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-26 of copending Application No.

10/645,988. Although the conflicting claims are not identical, they are not patentably distinct from each other because application 10/645,988 is broader than application 10/682,498.

Application 10/682,498 specifically states the voltage database as a color-specific-thermal-effect voltage database to generate reference voltages that account for a thermal-effect color balance, whereas application 10/645,988 does not recite the additional limitation of a color-specific-thermal-effect voltage database.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 1 of this application 10/682,498	Claim 1 of application 10/645,988
A thermal control and management system for a microdisplay comprising	A thermal control and management system for a microdisplay comprising
(a) a temperature sensor system for measuring and generating a temperature measurement signal; and	(a) a temperature sensor system for measuring and generating a temperature measurement signal; and
(b) a data processing means having a voltage database for receiving and processing said temperature measurement signal by employing said voltage database to generate a temperature-dependent reference voltages for operating said microdisplay system most suitable for said temperature measurement signal	(b) a data processing means having a <u>color-specific-thermal-effect</u> voltage database for receiving and processing said temperature measurement signal by employing said <u>color-specific thermal-effect</u> voltage database to generate a <u>color-specific-temperature-dependent</u> reference voltages for operating said microdisplay system <u>by accounting for a thermal-effect of color balance whereby said color-specific temperature dependent reference voltages are</u> most suitable for said temperature measurement signal

4. It would have been obvious for a person of ordinary skill in the art at the time the invention was made to have a thermal control and management system for a microdisplay that generates a color-specific-thermal-effect voltage for the purpose of having a stable appearance over a range of temperature values.

5. Claims 1-27 of application 10/682,498 contain every element of claims 1-26 of application 10/645,988 and as such anticipates claims 1-26 of application 10/645,988.

Specification

6. The disclosure is objected to because of the following informalities:

References are cited within the specification and cannot be found due to insufficient information. Please use PTO-1449 to list any references.

Page 2, line 34: Kurogane et al., no cited document number

Page 3, lines 4-5: US Patent RE 37056, Wortel et al., not a valid document number

Appropriate correction is required.

Claim Objections

7. Claims 6 and 7 are objected to because of the following informalities: the word sensor is misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. **Claim 9** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, namely “a reasonable range”. The reasonable range is not clear because it does not specify what a “reasonable range” encompasses.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. **Claims 1-4, 6, 9, 14-17, 19-23, and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Endo et al. (Pub. No.: US 2002/0158825 A1) in view of Endou (Patent No.: 5,936,604).

With respect to **Claim 1**, Endo discloses a thermal control and management system for a microdisplay ([0017], lines 1-5; *a microdisplay is equivalent to liquid crystal panel of the projector*). Endo teaches the system to comprise a temperature sensor system for measuring and generating a temperature measurement signal (*figure 8, 405*); and a data processing means (*figure 8*) having a thermal-effect voltage database (*memory, 404*) for receiving and processing the temperature measurement signal by employing the thermal-effect voltage database to generate temperature-dependent reference voltages for operating the microdisplay system by accounting for a thermal-effect of color balance whereby the temperature dependent reference

Art Unit: 2675

voltages are most suitable for the temperature measurement signal ([0136], *reference voltages (temperature measurement signal) stored in the memory are operated on by the arithmetic means in the CPU where a signal is sent to the offset adjustment section for determining the drive voltage*). Endo does not teach a color-specific-thermal-effect voltage database.

Endou teaches a temperature sensor (*figure 5, 39*) and a color-specific-thermal-effect voltage database (*See figure 5, 35, where figure 6 represents element 35; column 11, lines 14-16 and column 12, lines 21-26*).

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to use a color-specific-thermal-effect voltage database, as taught by Endou, to the thermal control and management system for a microdisplay of Endo, as motivated by Endou for the purpose of generating an effective voltage so that color designated by the image data can be displayed, color deviation due to a change in temperature can be prevented, and for having a simple circuit structure since it is unnecessary to additionally generate a voltage to be applied (*column 13, lines 20-29*).

With respect to **Claim 14**, claim 14 differs from claim 1 only in that claim 1 recites the limitation “a temperature sensor system for measuring and generating a temperature measurement signal” whereas claim 14 does not. Thus claim 14 is analyzed as previously discussed with respect to claim 1.

With respect to **Claim 20**, claim 20 differs from claim 14 only in that claim 14 is a system and claim 20 is a method. Thus the method claim 20 is analyzed as previously discussed with respect to claim 14.

With respect to **Claims 2, 15 and 21**, note the above discussion pertaining to claim 1 where the modified device of Endo and Endou shows a color-specific-thermal-effect voltage database. Endo teaches the data processing means as generating a temperature-dependent black state voltage (*stopping of black ~ low transmission*) and a white state voltage (*stopping of white ~ high transmission*) as the temperature-dependent reference voltages for each color most suitable for the temperature measurement signal accounted for the thermal-effect of color balance ([0097] and [0098]; *the generated black and white state voltages are equivalent to the voltages generated to correct portions of the panel where there exists error due to either high or low transmission*). Therefore, the stopping of white and the stopping of black is equally applied to the color-specific-thermal-effect voltage database of Endou.

With respect to **Claims 3, 16, and 22**, Endo teaches the data processing means further comprising a register for loading and reading the temperature measurement signal (*figure 8, 403*).

With respect to **Claims 4, 17, and 23**, Endo teaches the data processing means further comprising a color-specific digital-to-analog converter (DAC) output circuits (*figure 8, 310, 311, 312; note that after D/A conversion the corrected color specific temperature dependent reference*

voltage are generated as a result) for outputting the color-specific temperature dependent reference voltages (note the discussion in claim 1 where the modified device of Endo and Endou shows a color-specific-thermal-effect voltage database).

With respect to **Claims 6, 19, and 25**, Endo teaches the temperature sensor system further includes a temperature sensor embedded in the microdisplay ([0110], lines 1-3, note that embedded was interpreted as being on the circuit board of the liquid crystal projector).

With respect to **Claim 9**, note the above 35 U.S.C 112 2nd paragraph rejection. Endo teaches the data processing means further comprises a means for determining if the temperature measurement signal is within a reasonable range (figure 8, 403, the CPU performs calculations for generating a signal to the offset adjustment section for generating the driving voltage due to the temperature measurement signal).

12. **Claims 5, 18, 24, and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Endo and Endou as applied to claims 1, 14, and 20 above, and further in view of Yasue (Patent No.: 6,806,871 B1).

With respect to **Claims 5, 18, and 24**, Endo does not teach the data processing means further comprising an interpolation means for interpolating between two data in the color-specific-thermal-effect voltage database for generating the color-specific temperature dependent reference voltages.

Yasue teaches data processing means further comprising a curved interpolation means for interpolating between two data in the database for generating temperature dependent reference voltages (*column 8, lines 26-32*). Note the discussion above in claim 1 pertaining to the modified device of Endo and Endou showing a color-specific voltage database.

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to use an interpolation means of Yasue, to the data processing means of Endo as modified by Endou, so as motivated by Yasue for the purpose of providing a low temperature area, a room-temperature area, and a high temperature area with different temperature gradients, and to implement applied voltage compensation conforming with the temperature dependence of an electro-optical element (*column 2, lines 21-27*).

With respect to **Claim 26**, note the above discussion pertaining to claim 20 where the modified device of Endo and Endou shows a color-specific-thermal-effect voltage database.

Neither Endo nor Endou teaches a step of employing the color-specific-thermal-effect voltage database for generating the color specific temperature-dependent reference voltages further comprising a step of applying a curve-fitting algorithm using data in the database for generating the color specific temperature dependent reference voltages.

Yasue teaches a step of employing the voltage database for generating temperature-dependent reference voltages further comprising a step of applying a curve-fitting algorithm using data in the database for generating temperature dependent reference voltages (*column 8, lines 26-32*).

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to use a step of applying a curve-fitting algorithm using data in the database of Yasue to the method for temperature control and compensation for a microdisplay system of Endo as modified by Endou, so as motivated by Yasue for the purpose of providing a low temperature area, a room-temperature area, and a high temperature area with different temperature gradients, and to implement applied voltage compensation conforming with the temperature dependence of an electro-optical element (*column 2, lines 21-27*).

13. **Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over Endo and Endou as applied to claim 1 above, and further in view of the 10th Mediterranean Electrotechnical Conference, MeleCon 2000, Vol. II (PTAT Sensors Based on SJFETs, herein after referred to as “MEC”).

With respect to **Claim 7**, Endo and Endou do not mention the temperature sensors as PTAT (Proportional to Absolute Temperature) sensors.

MEC teaches the use of PTAT sensors. It would have been obvious for a person of ordinary skill in the art at the time the invention was made to substitute the PTAT sensor, as taught by MEC into the thermal control management system of Endo as modified by Endou, so as motivated by MEC for the purpose of obtaining good sensitivity, stability and linearity of sensor response in the measured temperature range of 20-90 degrees Celsius (*page 1, 2nd column, 2nd paragraph*).

14. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Endo and Endou as applied to claim 1 above, and further in view of Applicant Admitted Prior Art (Pub. No.: US 2004/0070562 A1 herein after referred to as "AAPA").

With respect to **Claim 8**, Endo teaches the data processing means further comprises an additional cooling activating system to activate additional cooling for the microdisplay ([0070] and [0071]). Endo does not mention the additional cooling activating system is activated according to the temperature measurement signal.

The AAPA teaches the use of a thermostat for activating a fan in a microdisplay ([0011], lines 7-10).

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to use a fan activated by a temperature sensor, as taught by the AAPA, to the thermal control management system of Endo as modified by Endou, so as motivated by AAPA for the purpose of controlling the operational temperature of a microdisplay ([0011], lines 6-7).

15. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Endo and Endou as applied to claim 1 above, and further in view of Levy et al. (Patent No.: 3,936,817).

With respect to **Claim 10**, Endo and Endou do not teach the data processing means further comprising a means for receiving and processing the temperature measurement signal to function as a part of a Peltier thermal control loop.

Levy teaches the use of a Peltier thermal control loop (*column 3, lines 29-37; A Peltier thermal control loop is equivalent to the thermoelectric effects/element, column 3, lines 43-45*). It would have been obvious for a person of ordinary skill in the art at the time the invention was made to use the Peltier thermal control loop, as taught by Levy, to the thermal control management system of Endo as modified by Endou, so as motivated by Levy for the purpose of functioning as a heat absorbing or generating system in order to conduct heat flow to or away from a heat sink (*column 5, lines 5-18*).

16. **Claims 11 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Endo and Endou as applied to claim 1 above, and further in view of Wood et al. (Patent No.: 5,926,162).

With respect to **Claim 11**, note the above discussion pertaining to claim 1 where the modified device of Endo and Endou shows a color-specific-thermal-effect voltage database. Endo teaches correction data for correcting error in an image due to high transmission of light (white state) and low transmission of light (black state). Neither Endo nor Endou teach generating color-specific temperature-dependent reference voltages most suitable for the temperature measurement signal for operating the microdisplay system as a liquid crystal display of a normally white mode accounted for the thermal-effect of color balance.

Wood teaches a data processing system means (*figure 4, 110*) generating temperature-dependent reference voltages (*output of 406*) most suitable for a temperature-dependent

Art Unit: 2675

measurement signal (*output of 408*) for operating the micodisplay system (*figure 2, 112*) as a liquid crystal display of a normally white mode (*column 6, lines 8-11*).

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to use the data processing system of a normally white mode, as taught by Wood to the thermal control management system of Endo as modified by Endou, so as motivated by Wood for the purpose of controlling the voltage applied to the common electrode according to factors that affect the voltage across the liquid crystal layer, dynamically adjusting the common electrode voltage according to the common electrode voltage according to the current maximum and minimum display circuit voltages, and to compensate for variations in the capacitance of the liquid crystal layer caused by temperature fluctuations (*column 2, lines 46-51 and lines 54-56*).

With respect to **Claim 12**, note the above discussion pertaining to claim 1 where the modified device of Endo and Endou shows a color-specific-thermal-effect voltage database. Endo teaches correction data for correcting error in an image due to high transmission of light (white state) and low transmission of light (black state). Neither Endo nor Endou teach generating color-specific temperature-dependent reference voltages most suitable for the temperature measurement signal for operating the microdisplay system as a liquid crystal display of a normally black mode accounted for the thermal-effect of color balance.

Wood teaches a data processing means (*figure 4, 110*) generating temperature-dependent reference voltages (*output of 406*) most suitable for a temperature measurement signal (*figure 2, 112*) for operating the microdisplay system (*figure 2, 112*) as a liquid crystal display of a normally black mode (*column 6, lines 11-16*).

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to use the data processing system of a normally black mode, as taught by Wood to the thermal control management system of Endo as modified by Endou, so as motivated by Wood for the purpose of controlling the voltage applied to the common electrode according to factors that affect the voltage across the liquid crystal layer, dynamically adjusting the common electrode voltage according to the common electrode voltage according to the current maximum and minimum display circuit voltages, and to compensate for variations in the capacitance of the liquid crystal layer caused by temperature fluctuations (*column 2, lines 46-51 and lines 54-56*).

17. **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over Endo and Endou as applied to claims 1 and 4 above, and further in view of Waterman et al. (Patent No.: 6,744,415).

With respect to **Claim 13**, Neither Endo nor Endou mentions the DAC as a resistor digital to analog converter (RDAC).

Waterman teaches the DAC as a resistor digital to analog converter (*column 7, lines 3-5; the RDAC is equivalent to a DAC according to the R-2R principle*).

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to use a resistor digital to analog converter, as taught by Waterman to the thermal control management system of Endo as modified by Endou, so as motivated by Waterman for the purpose of obtaining an ideal integration because the resistor network can be realized very precisely using the matching principle (*column 7, lines 10-12*), providing a control

voltage for driving the liquid crystal display (*column 2, lines 26-27*) and, providing optimum resolution within a voltage range in which most of the gray changes on the LCD occur (*column 2, lines 36-37*).

18. **Claim 27** is rejected under 35 U.S.C. 103(a) as being unpatentable over Endou (Patent No.: 5,936,604) in view of Funakoshi et al. (Patent No.: 6,862,012 B1).

With respect to **Claim 27**, Endou teaches a method for controlling and compensating temperature effects of a microdisplay system (*column 1, lines 59-64; note that the microdisplay is a pixel comprising RGB*) comprising: measuring a microdisplay temperature (figure 5, 39; column 11, lines 28-34), one for each color channel (*figure 6, since the output from the temperature sensor is converted from A/D then looking at figure 6, the digital data corresponds to a particular color, 1101 for the blue channel, 1000 for the green channel, and 0010 for the red channel*); and preloading lookup tables having measured/predicted data for a display (See *figure 5, 35, figure 6: table from applied voltage setting circuit, column 7, lines 1-3*), to modify a liquid crystal voltage operating range of the microdisplay for each color (*column 12, lines 20-35*). Endou does not mention such controlling and compensating temperature effects for achieving and maintaining a proper white point operating point for the microdisplay.

Funakoshi teaches a white point adjusting method (*column 3, lines 26-30*) where a plurality of tables are stored in memory for use to decide an offset quantity for each color temperature set by the highest gray level adjusting unit (*column 7, lines 34-38*).

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to use the white point adjusting method of Funakoshi to the method of controlling and compensating temperature effects of a microdisplay system, as taught by Endou, so as motivated by Funakoshi for the purpose guaranteeing a color temperature even if a contrast adjustment is made on a liquid crystal module (*column 3, lines 22-24*), and realizing a highly accurate white point adjustment while maintaining a substantially constant color temperature even at a different gray level (*column 11, lines 24-28*).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donna V. Lui whose telephone number is (571) 272-4920. The examiner can normally be reached on Monday through Friday 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571)272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Donna V Lui

Application/Control Number: 10/682,498

Page 17

Art Unit: 2675

Examiner
Art Unit 2675
Divison 2629

AMR A. AWAD
PRIMARY EXAMINER
